Attorney Docket No.: ASIAP022.US01

Application No.: 10/551,364

## The Listing of Claims:

1-10. (canceled)

11. (currently amended) A method of producing a bio-diesel oil, comprising:

(a) pre-esterifying a free fatty acid, contained in oil/fat, with an alcohol in the presence of an acidic catalyst to create a reaction mixture comprising an alkyl ester; and

(b) transesterifying the reaction mixture to create a <u>crude alkyl ester</u>, <del>product comprising the alkyl ester</del>,

wherein the <u>crude</u> alkyl ester <u>produced</u> by the <u>step</u> (b) is <u>directly</u>

<u>refluxed to the reaction mixture of step</u> (a) and/or step (b) without <u>separating</u>

<u>the alkyl ester from the reaction product.</u> is <u>refluxed back to the reaction</u>

<u>mixture to function as a subsidiary solvent that promotes homogenous mixing</u>

<u>of the reaction mixture.</u>

12. (original) The method as set forth in claim 11, wherein the step (a) further comprises adding alkyl ester as a product to the reactants.

13. (canceled)

Attorney Docket No.: ASIAP022.US01

Application No.: 10/551,364

14. (currently amended) The method as set forth in claim 11 or 12, wherein the <u>crude</u> alkyl ester of the step (a) or/and the step (b) is added to the reactants in an

amount of 1 to 30 % based on a weight of the oil/fat.

15. (original) The method as set forth in claim 11, wherein the oil/fat of the

step (a) is selected from the group consisting of vegetable oil/fat, animal oil/fat, waste

frying oil, and regenerated oil/fat, containing the free fatty acid.

16. (original) The method as set forth in claim 11, wherein the alcohol of the

step (a) and the step (b) is selected from the group consisting of C1 to C10 alcohols,

and a mixture thereof.

17. (original) The method as set forth in claim 11, wherein the oil/fat

containing the free fatty acid reacts with the alcohol in a molar ratio of 1:0.3 to 1:3 in the

step (a), and the oil/fat reacts with the alcohol in a molar ratio of 1:3 to 1:12 in the step

(b).

18. (original) The method as set forth in claim 11, wherein the step (b) is

conducted in a presence of a basic catalyst or the acidic catalyst.

19. (original) The method as set forth in claim 18, wherein the basic catalyst

or acidic catalyst is a homogeneous catalyst, and is added to reactants in an amount of

0.3 to 2.0 % based on a weight of oil/fat.

3

Attorney Docket No.: ASIAP022.US01 Application No.: 10/551,364

20. (original) The method as set forth in claim 18, wherein the basic catalyst or acidic catalyst is a heterogeneous catalyst, and is added to reactants in an amount of 5 to 80 % based on a volume of a reactor.

21. (original) The method as set forth in claim 11, wherein the step (a) and the step (b) are conducted in a batch reactor, a plug flow reactor, or a continuous stirred tank reactor, and when a plurality of reactors are used to conduct the step (a) and the step (b), the reactors are arranged in series, in parallel, or in combination of series and parallel.

22-34. (canceled)